

Appln No. 09/901,558

Amdt date August 18, 2005

Reply to Office action of June 28, 2005

REMARKS/ARGUMENTS

Claims 59, 66-71, 77, 83-88, and 94-100 are pending and claims 59, 77, and 94 are amended.

The specification has been amended to correct two minor typographical errors. No new matter has been added.

Claims 59, 77, and 94 are rejected under 35 U.S.C. 102(e) as being anticipated by Polley et al. (U.S. 6,618,480). Claims 66-69, 83-86 and 95-100 are rejected under 35 U.S.C. 103(a) as being unpatentable over Polley et al in view of Nabicht et al (U.S. 6,621,346). Claims 70-71 and 87-88 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Polley et al and Nabicht et al and further in view of Ouellette (U.S. 4,178,482). Applicants submit that all of the claims currently pending in this application are patentably distinguishable over the cited references, and reconsideration and allowance of this application are respectfully requested.

Amended independent claims 59 includes, among other limitations, " a converter configured to convert a differential input signal from a twisted pair telephone line to a single-ended input signal for the receive channel, and convert a single-ended output signal from the transmit channel to a differential output signal for transmission on the twisted pair telephone line," "an automatic gain control having a single-ended input coupled to the single-ended receive channel, and a single-ended output," "a single-ended first filter coupled to the automatic gain control output," and "a single-ended second filter coupled to the transmit channel for filtering the single-

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ended output signal before conversion to the differential output signal for transmission on the twisted pair telephone line."

Polley does not disclose the above limitations. Rather, Polley describes a DAC architecture for echo cancellation. Two digital-to analog (D/A) conversions are provided in an analog front end. (See, Abstract.). An electronic hybrid 24 converts a differential two-wire telephone line 14 to separate single-ended transmit and receive paths 21, 22. (FIG. 2, and col. 1, lines 60-63.) However, the electronic hybrid of Polley does not include a single-ended automatic gain control circuit. Furthermore the electronic hybrid of Polley does not include "a single-ended first filter coupled to the receive channel for filtering the converted single-ended input signal."

In contrast, the claimed invention converts a differential input signal from a twisted pair telephone line to a single-ended input signal, controls the gain of the single-ended input signal, and filters the single-ended input signal. Furthermore, the claimed invention filters the single-ended output signal before conversion to the differential output signal for transmission on the twisted pair telephone line. As a result, independent claim 59 is not anticipated by Polley.

Amended independent claims 77 and 94 include similar distinguishable limitations. Therefore, independent claims 77 and 94 are not anticipated by Polley either.

In short, independent claims 59, 77, and 94 define a novel and unobvious invention over the cited references. Dependent claims 66-71, 83-88, and 95-100 are dependent from claims 59, 77, and 94, respectively and therefore include all the

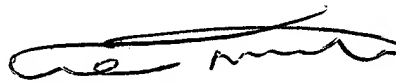
Appln No. 09/901,558
Amdt date August 18, 2005
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limitations of their respective independent claims and additional limitations therein. Accordingly, these claims are also allowable over the cited references, as being dependent from allowable independent claims and for the additional limitations they include therein.

In view of the foregoing amendments and remarks, it is respectfully submitted that this application is now in condition for allowance, and accordingly, reconsideration and allowance are respectfully requested.

Respectfully submitted,
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